

Application No. 10/761,745
Atty. Docket No. 2002B124/2
Amendment dated January 11, 2006
Reply to Office Action of October 11, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in this application.

Listing of Claims:

1-58 (Canceled)

59. (Currently Amended): A feed vaporization and introduction system for ~~an MTO~~ a methanol to olefin (MTO) reactor, comprising:

an inlet for receiving a methanol feedstock, wherein the inlet includes a heating device for vaporizing the feedstock;

a feed introduction nozzle connected by one or more lines to the inlet, the nozzle including a first generally tubular member defining a feedstock pathway, the tubular member having a first end for receiving a feedstock from a heating unit, a second end adjacent a reactor unit, and an inner surface forming a conduit for delivering the feedstock from the first end to the second end, wherein at least a portion of the inner surface is formed of a first material that is resistant to the formation of metal catalyzed side reaction byproducts commercial alloy selected from the group consisting of 410, 304, 316, 400, 330, 800, 600, 825, 601, 625, 617, 956, 693 and 671; and

a second larger diameter cylindrical tube oriented coaxially to the feed introduction nozzle thereby forming an outer cooling pathway around the feedstock pathway, wherein the cooling pathway is closed-off at an end corresponding to the first end of the nozzle so that cooling medium can flow toward the reactor unit and exit the feed introduction nozzle within the reactor unit through a diluent outlet.

60-94. (Canceled)

95. (Currently Amended): The feed vaporization and introduction system of claim 60, wherein the first material is ~~an alloy~~ a commercial alloy selected from the group consisting of 825 and 400.

96-101. (Canceled)

Application No. 10/761,745
Atty. Docket No. 2002B124/2
Amendment dated January 11, 2006
Reply to Office Action of October 11, 2005

102. (Currently Amended): The feed vaporization and introduction system of claim 60, wherein the first material is ~~an alloy~~ a commercial alloy selected from the group consisting of TD, 758, 625, 601 and 276.

103. (Currently Amended): The feed vaporization and introduction system of claim 60, wherein the first material is ~~an alloy~~ a commercial alloy selected from the group consisting of 693, 602, 690, 671, 617, 263 and 956.